Supporting Information:

Measurement of the Band Bending and Surface Dipole at Chemically Functionalized Si(111)/Vacuum Interfaces

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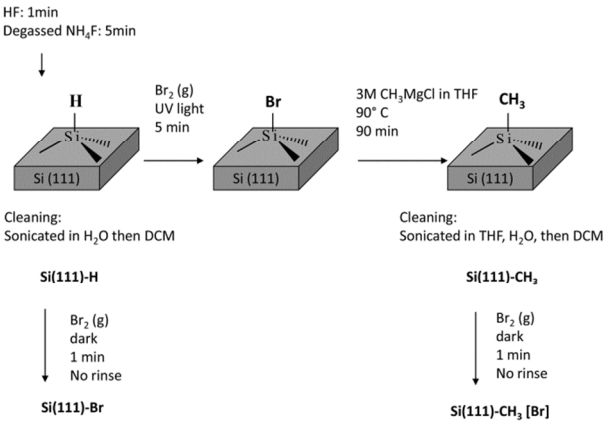
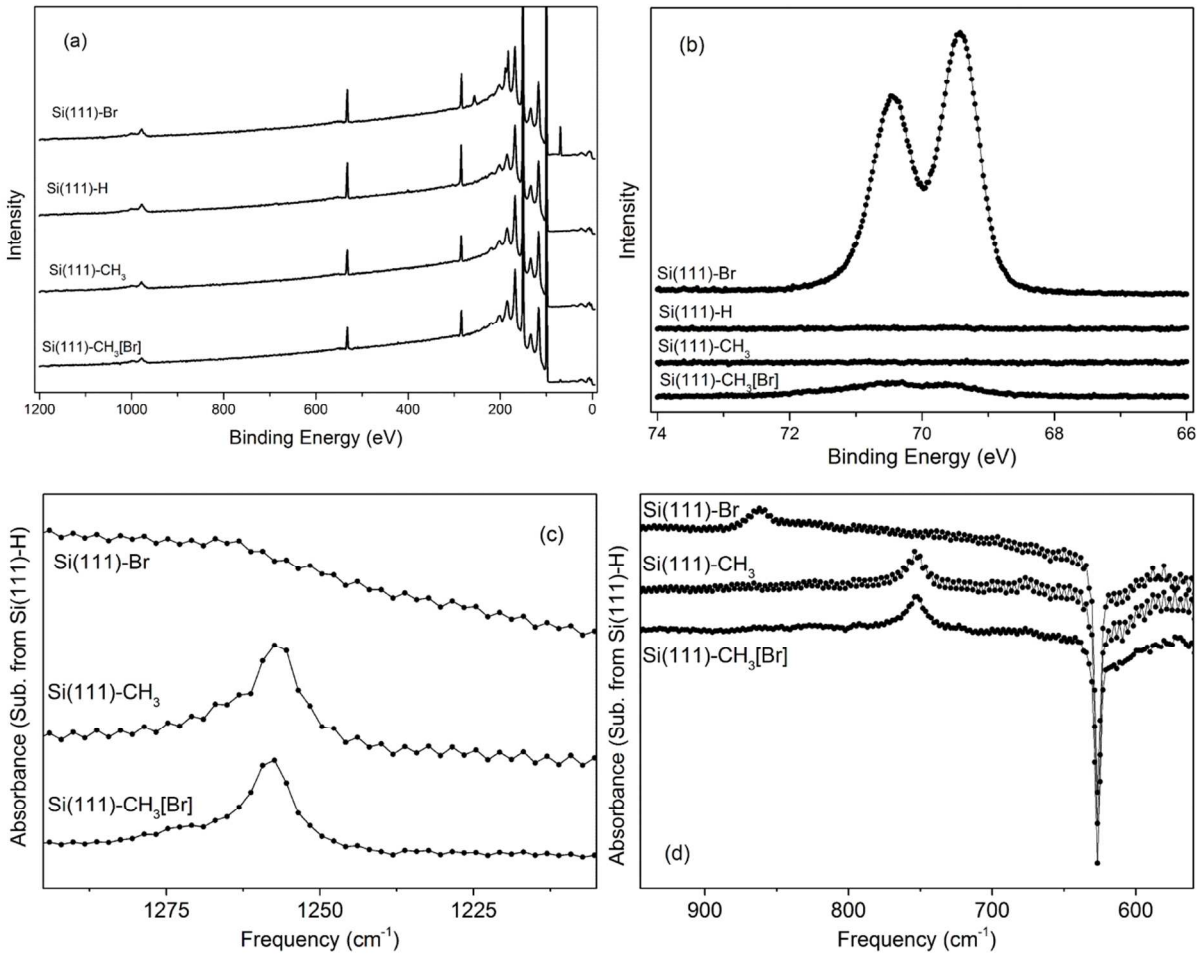


Supporting Information: Scheme 1. Schematic representation of Si(111) surface functionalization.



Supporting Information: Figure 1. XPS (a) survey and (b) Br 3d spectra of Si(111) surfaces. Sample surfaces are clean with adventitious carbon and oxygen accounting for 1-3 monolayers on unannealed surfaces. Si(111)-CH_3[Br] surface concentration of bromine is 10%-30% (10% shown) the concentration of Si(111)-Br surfaces. IR absorbance spectra subtracted from Si(111)-H (c) and (d) demonstrate no loss of characteristic Si(111)-CH_3 peaks upon exposure to bromine. The oxide coverage (not shown) was found to be less than 15% ±10% of a monolayer for all samples.